


# Diets De Jour

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# Objectives

- Describe all those diets
  - Describe the role of eating patterns and portions in weight control
  - Develop effective weight loss goals
  - Definitions of success
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# Categories of Diets

- High-Fat, Low-Carb
- Moderate-Fat, Balanced Nutrition
- Low-Fat, Very Low-Fat





# High-Fat, Low-Carb Diets

## 55-65% Fat, < 100 g CHO/day

- Atkins

- Carbohydrate Addicts

- South Beach

- Protein Power


Claims:

- Calories don't count

- Carbs are addicting


- Most overweight individuals don't overeat

- Ketosis is a reliable indicator of fat mobilization






# The Research

- No scientific evidence exists to suggest that low-CHO/ketogenic diets have a metabolic advantage over more conventional diets for weight reduction
  - In all cases, individuals on high-fat, low- CHO diets lose weight because they consume fewer calories
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# The Research (cont)

- Early days of diet, weight loss partly due to water loss.
  - Short term, diet causes greater loss of body water than fat. Water weight regained when diet ends.
  - If diet maintained long-term it results in loss of body fat
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# The Research (cont)

- Ketogenic diets may cause a significant increase in blood uric acid levels
  - Acidification of blood increases activity of osteoclasts and inhibits activity of osteoblasts. Concluding that a diet high in meat but low in fruits/veg could lead to bone loss
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# Adverse Effects


- Few clinically significant adverse effects have been reported.
  - Some reported side FX include:  
halitosis, constipation, dizziness,  
HA, insomnia, nausea, weakness,  
fatigue
- 





# Moderate-Fat, Balanced Nutrition

20-30% fat, 15-20% protein, 55-60% CHO

- Weight Watchers
  - Nutrisystems
  - Jenny Craig
  - Food Guide Pyramid
  - DASH diet
  - National Cholesterol Education Program Step 1 and Step 2
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# Moderate-Fat, Balanced Nutrition

## The Claims

● Weight loss occurs when body is in negative energy balance calculated to provide deficit of 500-1000 kcal/day

● Plus a promotion of increased energy expenditure (EXERCISE) provides a slow, steady weight loss of 1-2-#/wk



# Moderate-Fat, Balanced Nutrition

## The Research

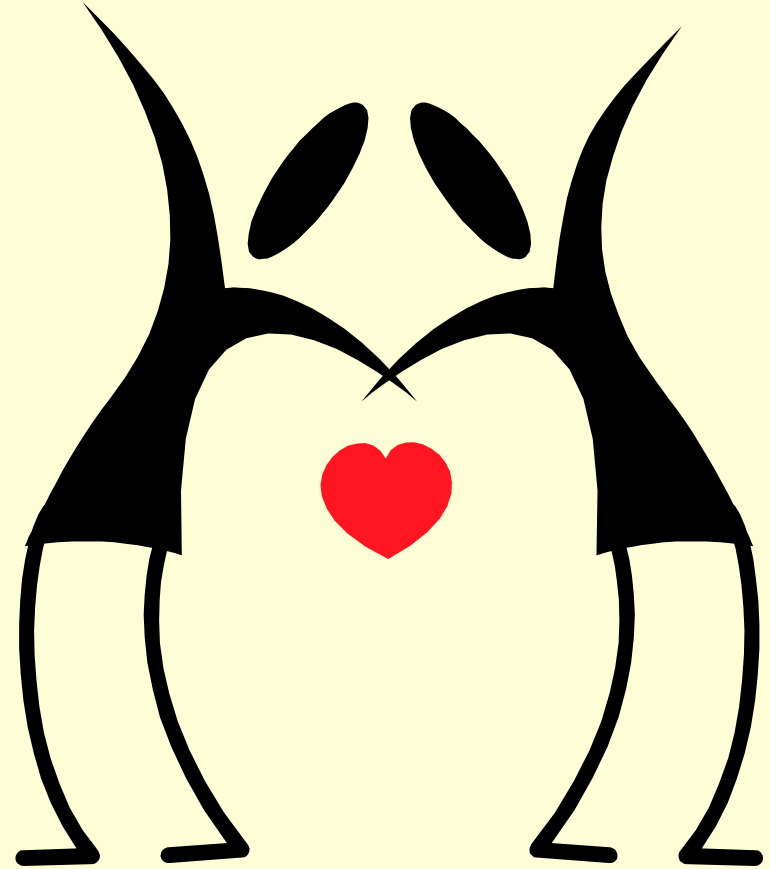
- Little evidence that lower fat diets cause weight loss independent of caloric restriction
- SnackWell example



# Low-Fat and Very Low-Fat (11-19%) (<10%)


 Pritikin

 Dean Ornish



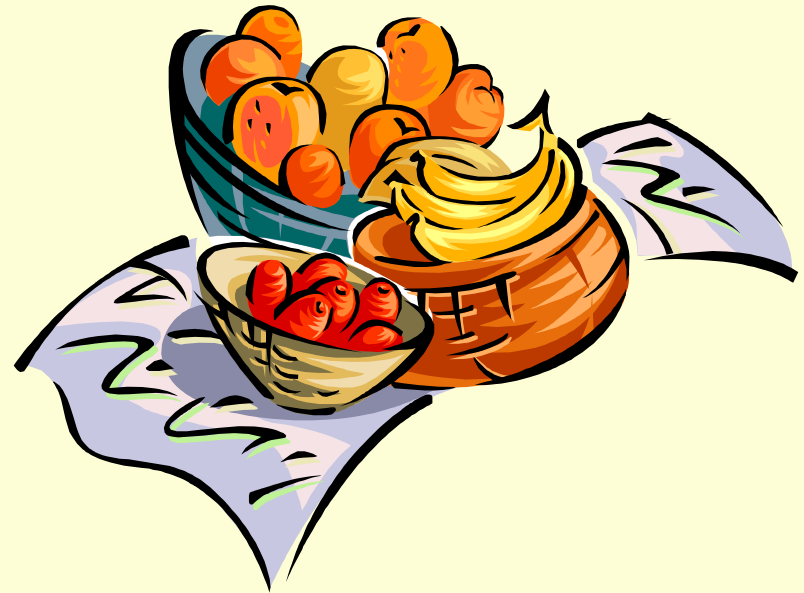


# Low-Fat and Very Low-Fat The Claims

- Not historically promoted for weight loss
  - Promoted for prevention/reversal of heart disease
  - Later editions focused more on weight loss
  - Uses caloric density and total lifestyle modification to improve health, lose weight (no calorie counting)
  - Eat as much as you want 6-7x/day
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# Low Fat and Very Low-Fat


- High in complex CHO's
- High in fruits and vegetables
- Moderate protein in the form of beans, egg whites, non-fat dairy, soy products





# Low Fat and Very Low-Fat

## The Research: Ornish

- 4 month study
  - 250 diverse people, throughout US
  - 50% worked full time
  - ~50% w/ household income of < \$50K
  - ~50% no college degrees
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# Low Fat and Very Low-Fat

## The Research: Ornish (cont)

- ~15# weight loss  
(0.94#/wk)
- Increased exercise capacity
- Avg BP  $\Delta$   
152/99  $\rightarrow$  131/76
- (+) DM: BG's  $\Delta$   
156  $\rightarrow$  126 mg/dL





# Portion Distortion


- Portion sizes in the US have dramatically increased in the last 30 years
- This, and the decrease in activity has contributed to the obesity epidemic





# The Increase in Food Portion Sizes Since the 70's

Food	Portion Size Increase
Cookies	700%
Pasta	480%
Muffins	333%
Steaks	224%
Bagels	195%



# Consumption Study

- When served a 12" sub -vs- 6" sub
- Women consumed 31% more (159 kcals)
- Men consumed 56% more (355 kcals)
- Hunger and fullness did not differ from 6"-8"-10"-12" subs.



# Consumption Study (cont)

- When served bigger portions consumers override or adjust their level of satiety to accommodate greater energy intakes.





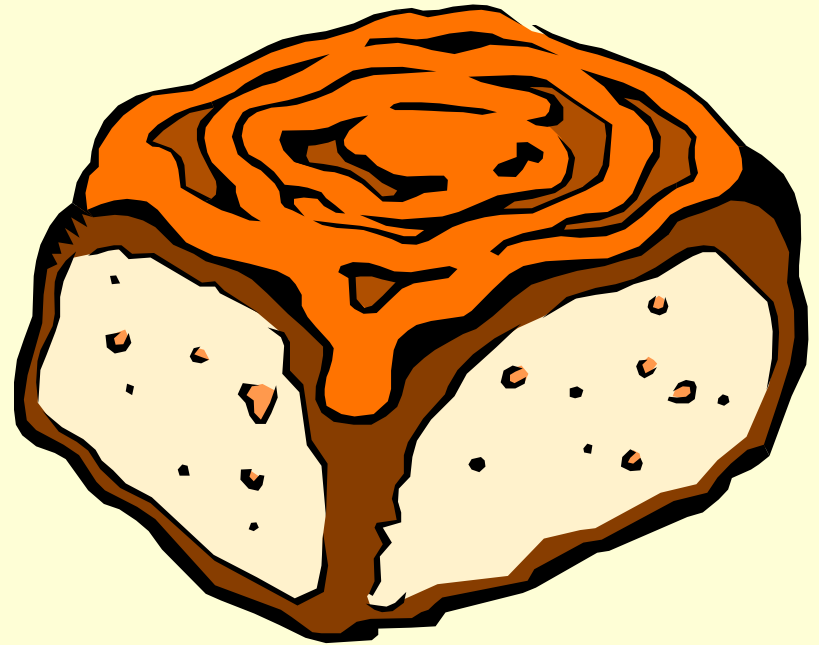
# People Will Still Eat it All

- .....Regardless of amount served in restaurants, 67% of respondents said they finished their entrees most of the times or always



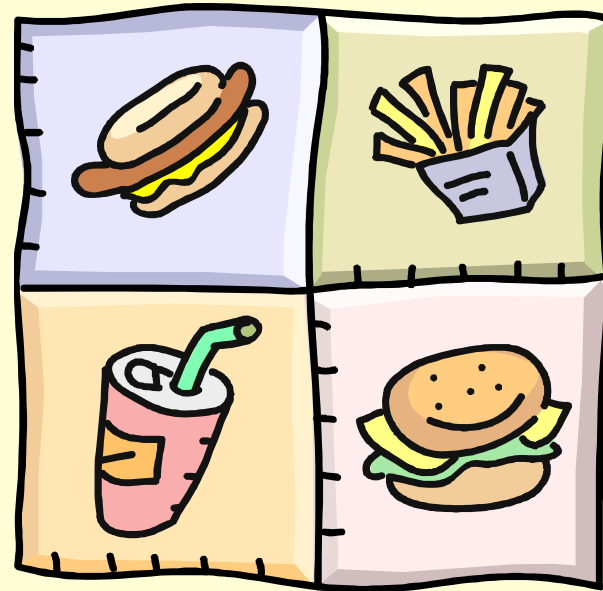
# Cinnabon

- Classic Cinnabon with frosting= 700 kcals, 24 grams of fat
- Pecanbon: 1,100 kcals, 56 grams of fat



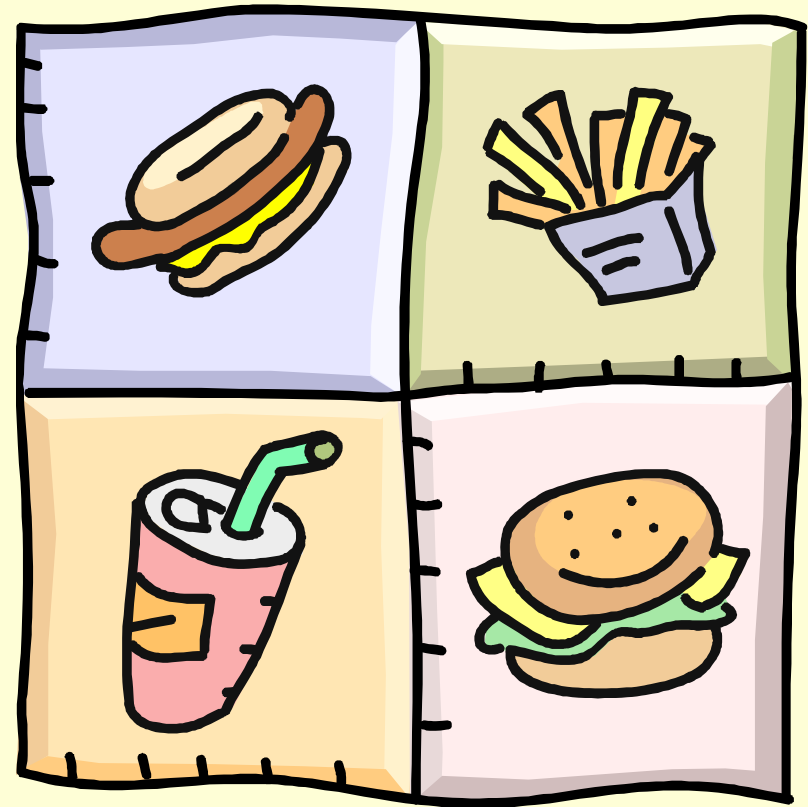
# Calories Count Too!!

- Regular Fast Food Meal:
- Reg burger, reg fries, 16 oz soft drink
- =625 kcals, 4 tsp fat (19 grams),  $\frac{1}{4}$  cup sugar



# Calories Count Too (cont)

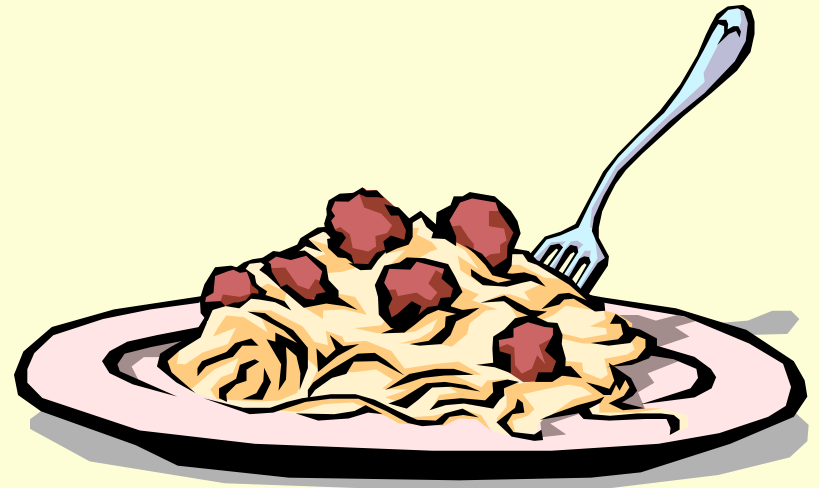
- Super Combo:
- Double burger with cheese, supersize fries and large drink
- 1800 kcals, 17 tsp of fat (84 grams),  $\frac{3}{4}$  cup sugar.






# How to Combat Portion Distortion

- Before eating seconds, wait 20 minutes.
- Eat every 4-5 hours. Healthy between meal snacks help prevent overeating
- Eat out no more than 1-2x/week
- Order the smaller size!






# Goal Setting

- Focus on how to lose body weight rather than quantity to lose
  - Goals need to be **measurable** and **realistic**
  - **set own goals based on your obstacles**
  - Set no more than 2-3 goals at a time
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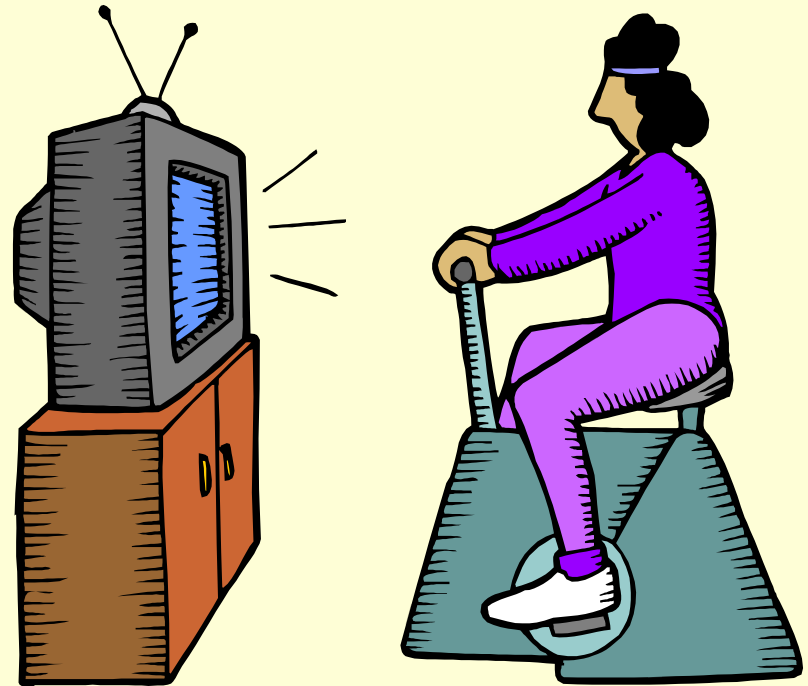


# Goal Examples

- I will exercise 5 hrs per week
  - I will keep food records 6x/week
  - I will eat out 1 x/wk
  - I will eat 3 veg and 2 fruits/day
  - I will eat 25-30 g fiber/day
  - I will use a pedometer and walk 5000-10,000 steps/day 5x/wk
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# Keeping it Off

- National Weight Control Registry
- People who have maintained a 30# (13.6 kg) wt. loss for at least 5 years





# Keeping it Off (cont)

- Data from registry indicates that successful weight maintainers consume a low-cal diet (~1500 kcals)
  - Data supports that a low-fat, low-cal diet most effective in maintaining wt. loss
  - ~40g fat (24% of energy)
  - 200 g CHO (56% of energy)
  - 70g pro (19% of energy)
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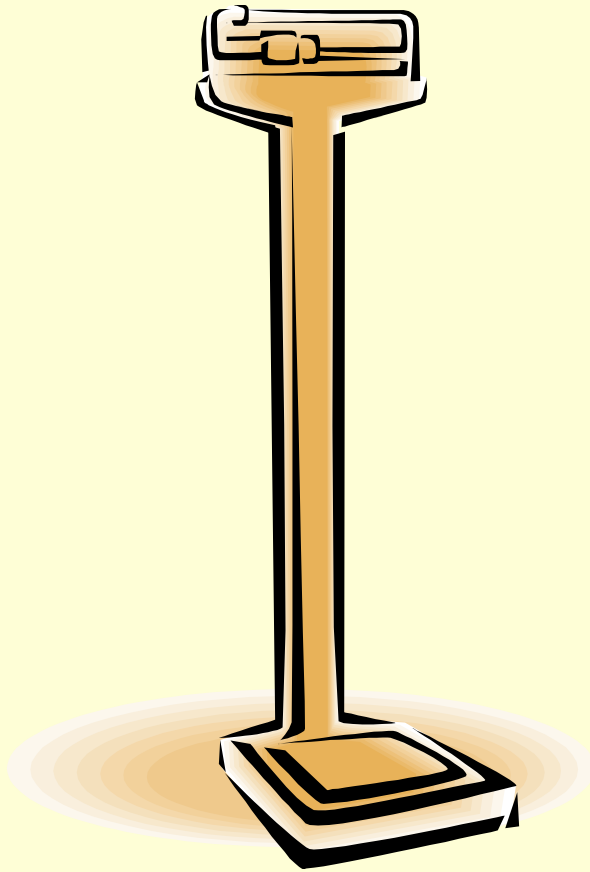


# Keeping it Off (cont)

- Increased activity and decreased consumption of high-fat (fast food) also key variable.




# Weight Loss Success is Not Exclusive to the Scale



- Are your clothes feeling looser?
- Improved fitness level?
- Less fatigue?
- Improved labs: BP, lipids, BG's?
- Following goals?



# References

- Obesity Research Supplement:  
Popular Diets: A Scientific Review.  
Freedman, King and Kennedy  
2001;9 (suppl 1): 15-405
  - Low Carbohydrate Diets as  
Compared to Low-Fat Diets; N Engl  
J Med 2003; 349:1000-1002, Sep 4  
2003.
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# Questions?





# Websites

- National Institutes of Health:  
Healthy Weight, menu planner:  
<http://hin.nhlbi.nih.gov/menuplanner/>
  - American Dietetic Association  
<http://www.eatright.org/Public/>
  - Navy Environmental Health Center:  
Nutrition for AD:  
<http://www-nehc.med.navy.mil/hp/nutrit/index.htm>
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